Is Moderate Drinking Injurious?

By Dr. Andrew Wilson. See page 162.

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EDITED BY DR. ANDREW WILSON, F.R.S.E. &c.

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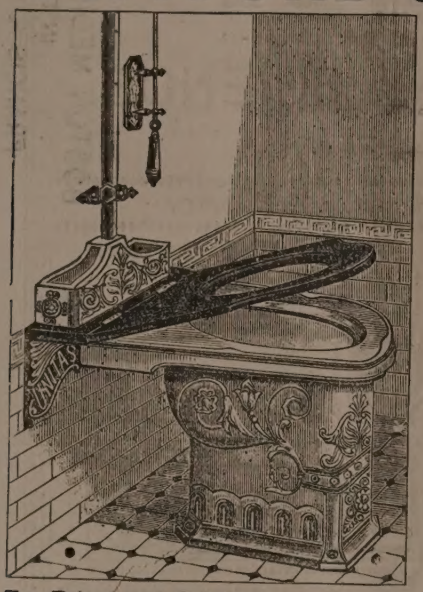

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◆ HEALTH ◆

EDITED BY

DR. ANDREW WILSON, F.R.S.E., &c.

LONDON: *FRIDAY, JUNE* 15, 1888.

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Notes by the Way

BY THE EDITOR.

"Health is the foundation of all our physical happiness."—*Herder.*

THE subject of tooth-decay in relation to "tea drinking," recently alluded to in these columns, has been further discussed in the pages of the *British Medical Journal*. Dr. Norman Kerr reminds us that in America, where much less tea is consumed, tooth-decay is far more rapid than with ourselves. He is probably right in attributing the American excess of tooth-degeneration to a general dyspeptic condition; and adds that "there can be little doubt that the white bread and tea (a common though defective staple diet of too many of our own population) is a frequent cause of gastric trouble. Next to tea, alcohol, by its depravity of the digestive apparatus, has always seemed to me to interfere with tooth-nutrition and soundness. It is to be hoped that the correspondence on this subject in your columns will draw permanent attention to the great need for a judiciously-selected, nourishing, non-stimulating, and wholesome dietary."

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MR. HENRY SEWILL follows on the same side. He alleges that "It may be taken as an indisputable fact that tea can have no direct effect upon either the teeth or upon the tissues of the mouth leading to dental disease, and whatever effect it produces in that direction can be brought about only through its influence upon digestion on the general health. There are so many factors in the remote causation of dental disease, that it must be very difficult to demonstrate the exact part which any one of them may take, but there cannot, as some of your correspondents seem to suppose, be any difficulty in the clear recognition of any dental disease co-existent with tea drinking."

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"DENTAL diseases," Mr. Sewill adds, "are few in number, simple in nature, distinct in character, and easily classified and named. Caries (decay), with its sequel, inflammation of the dental pulp (nerve) or periosteum, are by far the most common of dental maladies; and in so far as tea drinking might aid in inducing dyspepsia or any affection accompanied by vitiation of the oral secretions, so far would it become a factor in exciting caries. A correspondent who writes of dental disease and tea drinking among factory hands will find many other things in the regimen of these people to account for the fact which he observes.

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"THEY usually earn good wages, their food is superabundant and ill-cooked; they sometimes take too much beer and coarse spirit, their work is largely sedentary, and carried on in the warm, often moist, atmosphere of imperfectly ventilated rooms, so that they mostly suffer from chronic dyspepsia, and commonly accept it as an evil of life from which there is no escape. Add to this that tooth-brushes are unknown among these communities, and that the teeth remain from childhood covered with tartar, and with the *débris* of food, epithelium, and secretions—a decomposing mass constantly giving rise to formation of acid capable of dissolving enamel—and we have enough to account for the early onset and rapid progress of tooth decay from which they suffer."

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MR. SEWILL further insists that there is great need for greater exactitude in describing tooth-diseases: "Some correspondents," he says, "write, but rather vaguely, of maladies affecting the gums and roots of the teeth. There are well-known diseases of this kind. Some of them very much resemble diseases of the hair—various kinds of baldness. In many of these instances, the patient's health being good and the teeth free from ordinary decay (caries), the teeth slowly loosen, and are lost through very gradual absorption of the alveoli (or sockets), very little or no inflammation being present until towards the end."

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AFTER a description of a common form of tooth-decay, Mr. Sewill concludes his remarks by urging

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that the idea of tea as a cause of dental degeneration has not been proved. The whole question may, perchance, be at present left with the remark that excessive tea-drinking, such as is practised at large in the British Isles, is a frequent cause of dyspepsia, and this ailment, in turn, acting upon the system at large may induce tooth-decay as a secondary result. Ill-nourished bodies cannot be expected to exhibit sound teeth, and one step towards correction of the under-nutrition of the times is the minimizing of the use of tea as a beverage. How many thousands drink tea (and coffee) day by day under the delusion that they are foods!

❖ ❖ ❖

UNDER the title of "Washing made Easy," a correspondent recently wrote to a contemporary as follows; the hints given may be useful to the lady-readers of HEALTH: "As I am desirous of making known to as large a number of mothers and managers of households as possible a discovery of great value to them, I know of no quicker method of attaining my end than asking you kindly to spare a corner in your widely-read paper for the following. Managers of households will rejoice to hear of such a thing as washing made easy. Proceed thus:—

❖ ❖ ❖

"HALF fill an ordinary-sized copper with water, put in half a pound of soap, add one and a half tablespoonfuls of paraffin; heat until the soap is dissolved; then put in, without steeping, your linen in the order observed in ordinary washing. Boil well for half an hour, then lift out and rinse well through one or two clean waters, as may be thought needful, and the washing is done. No more days of rubbing and weary toiling, the paraffin doing the work of the tired fingers, and the time and soap required exactly halved; the only addition required being a little more water, soap, and paraffin, to make up for that lifted out with each boiling and for evaporation.

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"THIS process makes the linen more easily ironed, and gives it a fine clear look; and, again, I would add, it saves time. A washing which always took two women in my house a day and a half to do, is now done by one woman in less than a day, and well done. If only once tried, I feel sure this method of washing will never be abandoned. 'A perfect success' is the verdict of all who have tried it."

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FROM the report on the health of Hastings for the quarter ending March 31st, 1888, I am glad to notice that resort maintaining its high character for salubrity. The infectious-disease death rate is 0·67 per 1,000, or 0·33 per 1,000 below the average of this quarter of the last seven years. Hastings, as a seaside resort, may claim a high place among her neighbours in respect of freedom from zymotic troubles, and, indeed, from all ordinary ailments which municipal skill and care can succeed in warding off from her environs.

❖ ❖ ❖

FOR diseased and inflamed gums, two parts of golden seal, one part of powdered burnt alum, and two parts of glycerine, made in a paste and rubbed on the gums and around the teeth at night, strengthens and restores the gums to health, provided no tartar is present to cause the disease, which must be removed first before applying. To the epicure who relishes a nice breakfast-dish of fried fish, he will find "a feast for the gods" by frying the fish in glycerine to a brown, adding a small sprig of parsley when nearly done.

Original Essays

"Life is not to live, but to be well."—*Martial.*

IS MODERATE DRINKING INJURIOUS?

BY DR. ANDREW WILSON.

FIRST ARTICLE.

THE question of moderation in the use of alcohol has always formed the strong point of non-abstainers, and the bane of teetotallers. The greater glory of regulated "moderation in all things," as compared with the rigid asceticism of total abstinence, has been frequently dilated upon at length by those who, for one reason or another, partake of "the wine that cheers." The argument that the man who never exceeds—who is able to touch, taste, and handle so long as he finds it advantageous so to do, and to renounce whatever is hurtful to him without pledging himself to this or that course of action—is likely to be a stronger personage mentally, than the so-called weaker brother who avoids and shuns what he may have reason to fear, has found much acceptance with a large section of the public.

I regard the temperance question—or rather that of total abstinence—from a different standpoint. I hold that the matter is entirely a personal one—relative to the individual, and to his circumstances and mode of life in all its phases. The fact that there exist thousands who now take alcohol even in moderation, and who, nevertheless, would be much the better for its total discontinuance, is undoubted. The temperance cause is recognized by all, I apprehend, as possessing at its back a very large modicum of science, and certainly a vast amount of common sense. Total abstinence is worth a fair trial, at least, by everybody—to thousands it is the only barrier betwixt physical and moral safety and physical and moral ruin. Yet the "moderate man," it must be confessed, deserves to be heard. He may take alcohol "for his stomach's sake," and because he finds it to aid digestion. In this view, many limit their alcohol to their meal-times. Others, again, indulge more indiscriminately and with far less reason. Hence, from the scientific, as well as from the temperance standpoint, it is well that the moderate man should be dissected as to his alcoholic habit. We desire to know how far moderation is compatible with health; or, primarily, what is moderation? Difficult questions these of solution, but matters which have lately received attention at the hands of medical authority.

Dr. George Harley, F.R.S., a well-known London physician, lately contributed to the *Lancet* a series of papers on "The Effect of Moderate Drinking on the Human Constitution; Its Influence on Liver, Kidney, Heart, and Brain-Diseases"—to quote the full title of the articles. From Dr. Harley's long and varied experience as a physician, what he has to say on this topic merits the attention of the public. I therefore propose to quote a brief *résumé* of the conclusions at which Dr. Harley has arrived regarding the vexed question of "moderate drinking" and its relations to disease.

Our author very early in his remarks recognizes to the full the difficulties of his subject. He terms it "an intricate question," and laments the lack of information in medical circles regarding the health and diseases of moderate drinkers. The difficulties of the topic are well summarized by Dr. Harley when he gives the following reasons for the paucity of details regarding this phase of alcoholism:—"1. There are not only no tables of

statistics as to its effects in existence, but there are no means of acquiring them: the statistics of the effects of drunkenness, of which there are abundance of greater or less value, being unfortunately of no service whatever in solving the problem of the effects of moderate drinking either on mind or body. 2. In no instance are the effects sufficiently marked to necessitate any special form of treatment in a public institution. 3. The deleterious influences on the bodily functions are so insidious as in the early stages either totally to escape detection, or, what is more common, to lead them to be attributed to some entirely different cause. 4. The effects of moderate drinking manifest themselves in such a variety of different forms, that, even when their true nature is recognized, the general practitioner has not the opportunity of seeing a sufficient number of any one of them to admit of his drawing conclusions from them. 5. The men who have most experience of the severer forms of functional disease directly traceable to the effects of moderate drinking are, in general, merely those who, like myself, make liver and kidney diseases a special study; the liver, kidneys, heart, and brain being those organs of the body most affected by alcohol when indulged in within the limits of what is called moderation."

"Notwithstanding this fact," continues Dr. Harley, "it being impossible for me or even anyone else specially engaged in the treatment of liver and kidney diseases, to collect a sufficiently large number of telling cases from which to deduce crucial data of the deleterious effects of small quantities of alcoholic stimulants habitually indulged in by temperate men, I purpose adopting the plan of drawing conclusions from the statistical data of the effects of alcohol on the human constitution, when it is taken in the form of what is called 'nipping'—that is to say, small quantities only being taken at a time, but frequently, in the course of the day. Of these, fortunately, the Registrar-General's reports of our national mortality in different industries furnish us with something approaching to reliable data. So I shall make use of them, along with some German statistics of a similar character in illustrating the probable pathological effects of moderate drinking on the human constitution. For when one cannot get what he wants, it is good policy to make use of what he has got, on the principle that half a loaf is better than none. 6. Added to all these drawbacks to the formulating of reliable conclusions regarding both the direct and indirect effects of alcoholic stimulants, taken in small quantities at a time, upon the vital functions, there is yet the other of reconciling different minds with what is exactly meant by the term 'moderate drinking,' seeing that a quantity which one would call moderate is not at all unlikely to be by another designated immoderate drinking."

These words, so far, place the difficulties of the question more than fairly before the reader. It is naturally over the term "moderate" that much of the controversy turns. Dr. Harley would remind us that before we attempt "to define the intrinsic value of the two words, the mere use of the term 'moderate,' when applied to anything whatever—whether it be to walking exercise, or anything else—implies that it is merely a relative, and consequently a fluctuating quantity, according to the capabilities of the individual and the circumstances of the case. For a moderate walk to a weak person is quite a different thing from a moderate walk to an athlete. So the term 'moderate drinking,' when applied to a girl in her teens, is something quite different from the term 'moderate drinking' when applied to a robust man. Consequently its intrinsic value is not to be measured by quantity, but by the effects; and fortunately, as every thinking being is capable of doing this for himself, it is quite unnecessary for me to fix upon any given quantity, but merely to say that by moderate drinking I mean the indulging in alcoholic stimulants well within the margin of intoxication."

This is perhaps a satisfactory enough fashion of disposing of the difficulty. It might be open to argument, it is true, whether or not the phrase "well within the margin of intoxication" represents fully and clearly the physical status of the moderate drinker. Many a "moderate" man will object to being so defined in respect of his alcoholic habit. A man who takes say two or even three glasses of claret to dinner, or who, at that meal, takes a pint of beer or stout, or who may take a pint of champagne, and, as is the habit with many persons, touch no alcohol again during the day or night, may strictly be defined as a moderate drinker, while he is something more, I think, than a person "well within the margin of intoxication." In the practical consideration of everyday life, Dr. Harley's moderate drinker is really the man who, in addition to alcohol consumed at meals, "nips" during the day, and indulges in a "nightcap" of varying dimensions, alcoholically considered. Our author's subsequent remarks confirm this view of matters. His moderate man is really the "nipper"—the indiscriminate drinker, who takes alcohol freely, but is always well within the intoxicated margin. This class of persons is a very large one, and one can hardly deny that it includes persons who are liable to abuse alcohol even in their moderation. That this latter conclusion is a correct one, Dr. Harley's researches clearly demonstrate.

Oil of Bay *v.* Flies.—It is stated that oil of bay (*huile de laurier*) is extensively used in Switzerland by butchers to keep their shops free from flies, and that after a coat of oil has been applied to the walls none of these troublesome pests venture to put in an appearance. This remedy has also been tried and found effectual in the south of France in preserving gilt frames, chandeliers, &c., from becoming soiled. It is even remarked that flies soon avoid the rooms where this application has been employed.

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By DR. E. J. DUNGATE.

ELEVENTH PAPER.

HEREDITARY TRANSMISSION OF INSANITY AND A TENDENCY TO ACTS OF VIOLENCE.

DAVID'S sweeping assertion that "all men are liars" is paralleled by the assertion of some observers of insanity, who say, "all men are mad!" The imputation is very old, for Plautus says, "Hei mihi, insanire me ajunt, ultro cum ipsi insaniunt," and Damasippus, in Horace, says, "Insanus et tu, stultique prope omnes." Juvenal says, "Orandum est ut sit mens sana in corpore sano." He does not deny that sanity exists; but he recognizes its rarity and worth, speaking of it as something which must be prayed for. Shakespeare makes one of his characters say, "'Tis a mad world, my masters!" and Dr. Ball asserts that the persons who are quite reasonable in all points and throughout their whole lives form but a very small minority of mankind.

Many men are on the borderland of insanity, and the number of families in which insanity, or a tendency thereto, is bequeathed from generation to generation is very great. Consanguineous marriages in those families, or alliances of one such family with another in which insanity exists, must ever be productive of terrible results. This heredity, unfortunately, is not sufficiently recognized. We have before us a well-known religious paper in which there is a "leader" on the life and death of Ludwig II. of Bavaria. The writer of this article speaks as though it were beyond all doubt that if Ludwig had not given himself up to wild habits, and a constant pursuit of pleasure, his life would not have culminated in insanity. We maintain that it is more reasonable to suppose that his habits were the *result* of his insanity than that they were its cause. The doom of hereditary madness was over him from the very first. His only brother, Prince Otto, who has succeeded him as King of Bavaria under the regency of Prince Luitpold, his uncle, is utterly insane. One of his aunts, his father's sister, was afflicted with cerebral disease for some years, and his mother was first cousin to Frederick William IV., of Prussia, who showed unmistakable signs of mental derangement. Thus Ludwig and Otto have inherited a double taint from the Hohenzollern family and from the Wittelsbach family. Dr. Maudsley, who is an important authority on this subject, tells us that at least one-fourth of the cases of insanity are distinctly due to hereditary transmission. Guislain found that in fifty-six out of two hundred and twenty-four of his patients the insanity was inherited. Esquirol says that although he observed the hereditary taint three hundred and thirty-seven times among one thousand three hundred and seventy-five patients, he was persuaded that the predisposing cause was still more frequent. Dr. Burrows says that in six-sevenths of his patients he was able to trace hereditary tendency. Moreau goes further, and says that hereditary tendency may be detected in nine-tenths of the insane.

Royal families, since the days of Saul, have been by no means exempt from madness, and, if intermarriage continues, insanity will undoubtedly be more frequent and intensified. Dr. Elliotson says: "The royal families of Europe, subjected to strange restrictive rules in their marriages, are a lamentable proof of the ill-effects of the marriage of relatives. Imbecility or insanity, in one degree or another, occurs in nearly every royal family of Europe. It is amusing, when travelling on the Continent, to contrast the wretched legitimate heads on the money with the full front of Napoleon. . . . . The custom in royalty is but one of the many absurdities to which barbarous times have left it still a slave."

Louis XI., of France, was mad, and this madness has been traced back to his paternal grandfather, who was poisoned when a boy, and was ever afterwards an invalid. Louis had a delusion that everything about him stank, and the most delightful perfumes could not remove this fancy. His grandfather, Charles VI., and his father, Charles VII., both suffered from delusions. The last-mentioned king died from a self-enforced starvation, refusing to eat, because he thought himself about to be poisoned. The royal family of Hapsburg—or Hapsburg, as it is more properly called—was notorious for its hereditary predisposition to insanity. Several reigning families acquired the same taint by intermarriage with the House of Hapsburg. It is thought to have been introduced by the marriage of Philip I., of Spain (Duke of Austria), with Joanna, daughter of Ferdinand and Isabella of Spain. Joanna was proclaimed joint sovereign of Castille with her husband. When Philip died, however, the authority reverted to Joanna; "but," as Coxe says in his "History of the House of Austria," "her disordered intellects received such an additional shock from the loss of her husband, as reduced her to a state of total insanity." This tendency to insanity continued till 1740, when Charles VI., Emperor of Germany, died, and the Hapsburg family became extinct. Little is known of the Emperor, Charles V., who was the son of Joanna, but there is sufficient to show that he inherited the malady of his mother. Concerning Rudolph II., who was the great-grandson of Joanna, for both his mother and father were grandchildren of Joanna, and therefore first cousins, history has given us extraordinary tales. In many respects he was remarkably like Ludwig II., of Bavaria. In 1606 he was declared insane, and deposed. The Spanish Bourbons, who were connected with the Hapsburgers, have given us several examples of imbecility and madness, showing how obstinately the disease may cling. The reason commonly assigned for the disease continuing to run in the blood of so many generations of these families is the constant intermarriages, which were contracted in these families.

In the case of George III. of England, the insanity which afflicted him can be traced back for more than two hundred years. He inherited both his insanity and his blindness from a remote ancestor, Duke William the Pious; and these were transmitted in the direct male line for eight generations. Thackeray, speaking of William of Lüneberg (or William the Pious), the progenitor of the Hanoverian House, says (in "The Four Georges"): "He was a very religious lord, and was called William the Pious by his small circle of subjects, over whom he ruled till fate deprived him of both sight and reason. Sometimes, in his latter days, the good duke had glimpses of mental light, when he would bid his musicians play the psalm-tunes which he loved. One thinks of a descendant of his, two hundred years afterwards, blind, old, and lost of wits, singing Handel in Windsor Tower."

M. Esquirol remarks that hereditary transmission of predisposition to madness is much more common among the opulent than among the poor. He states that he found the proportion of hereditary cases among the former to be one half, and among the latter only one sixth. This he explains by reference to the exclusive marriages among the aristocratic families of France.

Dr. Elliotson, speaking of consanguineous marriages, says: "The rich Jews in this country have the same bad custom of marrying first cousins; and I never saw so many instances of squinting, stammering, peculiarity of manner, imbecility, or insanity, in all their various degrees, intense nervousness, &c., in an equal number of other persons." Dr. Burrows says: "One of the youngest insane patients I ever had under my care belonged to a respectable Jewish family. His father and mother were insane, and his six brothers and sisters became, like himself, deranged, as they arrived at the age of puberty. One of them died insane; my patient recovered from his first attack in about three months." Here we may mention, also, that it has several times been remarked that insanity is very prevalent among the "Society of Friends."

Piorry gives a fearful case of hereditary insanity in his work "De l'Hérédité dans les Maladies" (p. 169): "A goldsmith who had been cured of a first attack of insanity, caused by the revolution of 1789, took poison; later, his eldest daughter was seized with an attack of mania, passing into dementia. One of his brothers stabbed himself in the stomach with a knife. A second brother gave himself up to drunkenness, and ended his career by dying in the streets. A third, owing to domestic annoyances, refused all food, and died of anæmia. Another daughter, a woman of most capricious temper, married, and had a son and daughter: the former died insane and epileptic; the latter lost her mind during her lying-in, became hypochondriac, and wished to starve herself to death. Two children of the same woman died of brain fever, and a third would never take the breast."

The New Test for Foul Air.—A very ingenious indicator of the amount of carbonic acid in the air has been invented by Prof. Wolpert, of Nurnberg. The principle of the apparatus is that when the red solution of sodium phenalphthalide is acted upon by carbonic acid it loses its colour. At regular intervals of time, say every 100 seconds, a drop of the red liquid falls from a syphon on a thread, behind which is a scale. As the drop trickles down the thread it loses its colour slowly or quickly, depending on the amount of carbonic acid present in the air. If the air is perfectly pure, the drop stays red during its whole course. The scale shows 0·7 parts of carbonic acid in 1,000 for "pure air," and 4 to 7 parts in 1,000 for "extremely bad." It would be a capital idea to have some such apparatus in our public schools, where so often the atmosphere is simply villainous. Children sit in overcrowded rooms, with feet like ice, heads like fire, and brains like glue, breathing and rebreathing disease germs and untold gaseous nastiness, and this, too, in the present civilization, when ventilation and the results of the lack of it are so well understood.

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Personal Health

"Be timely wise;
With health all taste of pleasure flies."—*Gay.*

SKIN BLEMISHES ON THE FACE.

A source of much annoyance to very many people is a constant or oft-recurring rash upon the face. The skin on the arms and body may be as clear as possible, while the face is rough and marred with pimples. To the consideration of facial eruptions we will devote a little space.

In the vast majority of cases the rash is *acne*, which usually begins with a little "black head," inflames and grows red, and after awhile "comes to a white head," when matter can be squeezed out of it. The rash occurs by preference about the nose, on the forehead and chin, and also upon the back of the neck and shoulders. Most common in brunettes, it is not seldom associated with some perversion of the liver. The age of puberty often sees the black heads numerous for a year or so, after which they generally subside. Many are the procedures recommended for their removal and cure, but they are of little or no avail, for hot water, sulphur, &c., are useless, authorities notwithstanding. The way in which acne may be positively cured is this:—

Take a soft silk handkerchief, and with each forefinger covered with it, carefully and effectually squeeze out all the blackheads that are not inflamed. The inflamed ones let alone; squeezing will make them worse. After this operation the face will look bad for a day, but afterward much better. The design in squeezing out the "blackheads" is to stop the present supply for pimples. But to eradicate the trouble something far more radical is needed. If there be constipation, it should be remedied at once; nothing noteworthy can be done till this be removed. A whole or part of a laxative or cascara tabloid may be taken every night or two, according to individual needs. It will be noted that the face is always clearer after digestive action. The kidneys are also to be kept active, thus relieving the skin of an excess of work. A tablespoonful of cream of tartar in a glass of water, alternated with a quarter of a seidlitz powder every other night, will effect this.

We come now to the local treatment. First of all, drying and irritating soaps are to be avoided, and, unfortunately, but too many of the soaps are of this nature. In lanoline soap we find an exception; it is made with lanoline, a fat natural to the skin, and agrees perfectly with the most sensitive of skins. Another point—the face should be daily anointed with a non-rancid emollient, and such a one, be it known, is a cold cream also made with lanoline, and known as lanoline cold cream. It should be applied freely at night, and whenever the face has been exposed to the hot sun, a cutting wind, &c. In those cases where unguents do not answer, recourse can always be had with advantage to Hazeline.

There must be moderation in the matter of diet; wines should be discarded, plenty of water should be taken between meals, and an excess of meat avoided. Good fruit is excellent. Irregular habits and late hours will make a cure well-nigh impossible, as will likewise sleeping in too small a room.

Desperate.—Physician (to patient): "Your case is a very serious one, sir, and I think a consultation had better be held." Patient (too sick to care for anything): "Very well, doctor, have as many accomplices as you like."

FACTS ABOUT OPIUM.

By G. WINTERBURN, M.D.

"Oh, that men should put an enemy into their mouths to steal away their brains."—OTHELLO.

"They are drunken, but not with wine; they stagger, but not with strong drink."—ISAIAH.

SOME years since, I think it was in 1881, I delivered an address in New Haven (U.S.) on Opium Inebriety. A brief and somewhat garbled report of this lecture appeared in the secular press, and was copied extensively. I have reason for believing that public attention thus directed to the subject resulted in abridging in some degree the reckless use of this drug as a sleep-producing agent.

While opium is not the only medicinal substance which tends to create an appetite for itself, an appetite so intense and consuming as to, in most cases, overbear the will-force of the individual, and make him a slave to habit—tobacco, hashish, arsenic, and alcohol being also of this category—it has escaped public censure to a notable degree when its widespread misuse is considered, and the rapid increase in this misuse; an increase which now demands twenty pounds where one sufficed twenty years ago.

Opium (from ὀπός, juice) is the crystalline liquid that exudes from the capsule of the poppy, and was denominated by Galen as *lachrymæ papaveris*—poppy tears. This capsule is not unlike in shape and size a seckle pear, except that it has, projecting from its upper extremity, a flat, fibrous, five-pointed star, the *stigma*, which, contrary to the habit of leguminous plants, instead of falling, after the formation of the pod, in this case persists. The juice is obtained by cutting slits through the outer covering of the capsule, and scraping off with a dull knife the gummy exudate; the slitting is usually done in the afternoon, and the juice collected the following morning. This is then made up into balls about the size and shape of a Dutch cheese, in which condition it comes to market.

Opium is interesting, as it was through the researches into the nature of this substance that chemists were led to the discovery, in the year 1817, of the alkaloids, which substances are usually the active principles of the plants in which they are found. The opium mass contains some fifteen different alkaloids, of which morphine, thebaine, laudanine, papaverine, and narcotine are the principal; and of these morphine is the most important. Morphine exists in the opium mass in combination with an acid peculiar to opium, meconic, as a meconate, and also with sulphuric acid as a sulphate. Crude opium is prepared for the consumer in various forms, such as *paregoric*, which contains two grains of opium to the ounce; *laudanum*, which contains thirty-seven and a half grains to the ounce; *Dover's powder*, a mixture of ipecac, opium, and milk sugar in the proportion one part each of ipecac and opium and eight parts sugar; and *morphine*, usually administered in the form of the sulphate. Besides these, there are many proprietary preparations whose chief medicinal value, if they have any, depends upon this drug.

Like aloes, opium comes down to us through the centuries. Nine hundred years before Christ, Homer speaks of the poppy as a familiar garden plant. Livy relates that it was a conspicuous feature in the gardens of Tarquinius Superbus (B.C. 570). Hippocrates, Catullus, and Plato understood its peculiar virtues; and Virgil mentions the offering of the poppy to the gods for the repose of Orpheus:

Inferias Orphei lethæa papavera mittes.

The medicinal properties of opium was known to Theophrastus, who speaks of it by the name of μηκώνιον (meconium); but this seems to have been an extract of the whole plant, as Dioscorides calls attention to the distinction between μηκώνιον and the more pungent and active ὀπός. In the Greek mythology Cybele, the mother of Zeus, and as such styled "mother of gods" (θεῶν μήτηρ), is always represented as wearing a wreath of poppies as a symbol of fecundity. Although she was the goddess of vine growing and agriculture, she is generally figured seated on a throne with a lion on her lap or under her feet, or with a lion at each side, or drawn in a chariot by lions, and in her hands a sceptre and a cymbal, but ever with the crown of poppy leaves and blossoms on her brow. Ceres, the Roman goddess of seed and harvest, the mother of Persephone (whose father was Zeus) was delineated as bearing an opium capsule in one hand and her sceptre in the other. Somnus was pictured as reposing on a bed of snowy poppies. Ovid speaks of Night—

Interea placidem redimitta papavera frontem,
Nox venit, et secum somnia nigra trahit.

While Egypt, the mother race, more than thirty centuries ago introduced the poppy extract to the world, and it thus became a constituent of that renowned cordial of Helen of Troy, yet it was Persia, and later, the Moslem, that kept this knowledge alive; and it was not until the tenth century that it travelled into China. Carried over the great wall by the Tartar hordes (during the reign of Taitsu, 980-95), it was slow in fixing itself as a national habit, and, indeed, about 1368 it was driven entirely out of the empire. Unhappily, it was re-introduced through Arabian influence, and by slow increase the importation rose by 1767 to about two hundred packages per annum—that is, about twenty-seven thousand pounds; a really very moderate amount considering that a knowledge of its uses had been current in the empire for eight hundred years. From this date, however, it grew with astonishing rapidity within a century to seventy-five thousand packages (ten million pounds), and now (1887), to more than one hundred and twenty thousand packages, equalling sixteen million pounds; besides an enormous home-production estimated at fully two hundred per cent. of the importation. It is said that there are from one hundred to one hundred and twenty million Chinese who habitually smoke opium.

The history of the growth of this habit is a terrible indictment of the English nation. In the earlier centuries, the drug was used solely as a medicine, and was obtained mainly through the Dutch, who purchased the drug for export long before the East India Company held possessions in India. In a Chinese herbal compiled in the sixteenth century, both the plant and its inspissated juice are described and commented upon. Up to the middle of the eighteenth century, the comparatively unimportant importation was due to the demand for the drug as a remedy for diarrhœa, dysentery, and malarial fevers, and was sometimes brought from India in junks as a return cargo. Had the East India Company never existed, it is probable that this innocent use of the drug would never have been exceeded; but, unfortunately for China, as well as India and the entire Orient, Clive's victory at Plassy (1757) placed India in the grasp of the Company, and the monopoly of opium-cultivation passed into its hands. They soon showed in this, as in many other things, their greedy heartlessness. At the time of Clive's victory the Indian trade with China was mainly in the hands of the Portuguese; but in 1773 the East India Company seized that also, and began at once to stimulate the vicious use of opium throughout the

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Orient. So successful were they in this that three years later (1776) their trade with China had grown from two hundred packages to one thousand, and in less than twenty years to more than four thousand; and this in spite of the strenuous efforts of the Imperial Government to prevent it. About that time (1796), during the reign of the Emperor Kea-king, the most severe penalties were imposed against opium-smoking, even transportation and death in cases of repeated conviction, and the importation of opium into the empire was rigidly forbidden. Nevertheless, the trade continued and increased, reaching seventeen thousand packages (two and a quarter million pounds) in 1820; that is, the enormous increase in half a century of eighty-five hundred per cent! In 1839 the English opium-ships were proclaimed as contraband, and ordered out of all Chinese ports. This command not being complied with, the Imperial Government, on April 3, seized the opium on board, valued at about ten million dollars, and destroyed it; but still the English tried to smuggle cargoes on shore. On this the mandarins stopped all foreign trade, and by the most vigilant preventive measures attempted to exclude opium from the market, even at the cost of losing their entire and extremely valuable export trade in teas, silks, and other Chinese products.

Never did a nation more manfully struggle against a growing national evil; but the English Government declared this to be a *casus belli*, and sent an invading force into Chinese waters, capturing in succession Chusan, Hong-Kong, Canton, Amoy, Ningpo, Shanghai, being everywhere successful. The Imperial Government, dreading the loss of Nanking, proposed terms of peace, and the English commissioners were no ways bashful in formulating their demands. The result was an open market for opium; Hong-Kong, Amoy, Fuh-chow Foo, Ningpo, and Shanghai were declared open to free trade; and an indemnity (so-called, but really out-and-out robbery) of twenty-one million dollars was paid to the English. Since then various Chinese officials, notably Prince Kung, have strenuously endeavoured to free their people from this enforced importation, but without success. Foiled in this, the Imperial Government has turned its attention to the native culture of opium, evidently thinking that if the Christian is determined that the Pagan must use opium, he might just as well grow it himself. It had been produced surreptitiously in several provinces, Yunnan, Chekeang, and possibly others; but, under the stimulus of governmental encouragement, it is now grown in all the nine south-western provinces, the total output (1887) exceeding thirty-three million pounds, and on account of its comparative cheapness and increasing good quality, it is confidently anticipated that it will, in a comparatively brief time, drive the Indian opium out of the Chinese market. But, alas! other nations are learning to crave the Indian narcotic, and again, alas! America is not the last in this fearful and fateful race.

The poppy is now cultivated extensively, not only in India and China, but also in Persia, Turkey, Egypt, Mozambique, Algeria, and, to some extent, in Australia (where it is likely to become quite an important agricultural factor), Greece, Italy, Spain, France, Germany, Sweden, England, and in Virginia, Tennessee, and California. The fact that good opium, yielding 12·8 per cent. of morphia (the Indian *average* is 10 per cent., good specimens running as high as 17), can be raised in Sweden shows that a tropical or sub-tropical climate is not necessary for its production. Poppies grown in France have yielded 22·8 per cent. morphia, being the highest ever found in any opium; but the cost of production is too great to permit of profitable competition with the Eastern opium-fields. As in Europe, so in this country, the high price of labour militates against the probability of its ever becoming a regular crop, the expense of cultivation exceeding the returns; though, under favourable circumstances, large profits have been secured. Thus, in 1830, Mr. Young, a surgeon in Edinburgh, raised an acre of poppies, and sold the product for upwards of five hundred dollars.

Parcellus introduced opium into Europe about three centuries and a half ago, and a knowledge of its uses gradually spread over the Continent and to England. Except in the large French cities, notably Paris, it has never assumed the proportions of a national want on the Continent; but in England the demand has grown with fierce rapidity, so that now England consumes more than all Europe besides. The importation into Great Britain for home use, that is, the difference between the quantity imported and exported, showing the amounts used in the country, amounted in 1800 to five thousand pounds, in 1820 to fifteen thousand, in 1840 to forty thousand, in 1860 to one hundred thousand, in 1870 to two hundred and forty thousand, and in 1880 to three hundred and ninety thousand.. In Lancashire alone enough is sold to provide every man, woman, and child in the shire with a couple of drachms of laudanum every day in the year. Thus England reaps the whirlwind she sowed in China.

In the United States, previous to 1840, the opium habit was almost unknown. The few exceptions, like John Randolph, of Roanoke, only serve to emphasize the force of the general statement. Now there is scarcely a village in the entire expanse of our broad domain, from Maine to the Golden Horn, without its opium devotees. This fearful scourge, a scourge which destroys more lives than all the zymotic diseases together, has been permitted to extend its sway, almost without a note of protest, until it threatens the national life.

(To be concluded.)

Afflicted.—Georgie comes down to breakfast with a swollen visage, whereupon mamma says to the four-year-old: "Georgie, don't you feel well? Tell mamma what the matter is," Georgie, full of influenza replies: "No, I don't feel well. Bofe of my eyes is leakin', and one of my noses don't go."

Paper Bottles.—One of the most interesting of the many uses to which paper has been put is the manufacture of paper bottles. We have long had paper boxes, barrels, and car wheels, and more recently paper pails, wash-basins, and other vessels; but now comes a further evolution of paper in the shape of paper bottles, which are already quite extensively used for containing such substances as ink, bluing, shoe dressing, glue, &c., and they would seem to be equally well adapted for containing a large variety of articles. They are made by rolling glued sheets of paper into long cylinders, which are then cut into suitable lengths, tops and bottoms are fitted in, the inside coated with a waterproof compound, and all this done by machinery almost as quickly as one can count. They are cheaper and lighter than glass, unbreakable, and consequently very popular with consumers, while the fact that they require no packing material, and are clean, handy, and economical, commends them to manufacturers. Unlike glass, they can be manufactured and shipped at all seasons; and being made by machinery, the supply is independent of labour troubles, which are additional advantages to manufacturers who use bottles.

Popular Science Papers

"Blessings on Science! When the Earth seemed old,
When Faith grew doting, and our reason cold,
'Twas she discovered that the world was young,
And taught a language to its lisping tongue."
—*Charles Mackay.*

TRANSPLANTING NERVES.

MUCH interest, says *Nature*, has been excited by the successful transplantation of nerve from a rabbit to man. The operation was performed by Dr. Gersung, of Vienna, and the patient was Dr. von Fleischl, Professor of Physiology in the University of that city. Sixteen years ago, Dr. von Fleischl accidentally wounded himself while conducting a *post-mortem* examination, and the consequent severe inflammation of his right arm and hand led, ultimately, to the loss of the terminal joint of his thumb. The end of the stump having become painful, amputation somewhat further back was performed. This was followed by the formation of "neuromata." In the hope of obtaining relief, he underwent several fruitless operations. Ultimately, Dr. Gersung suggested that the nerves might be repaired, and the missing portions replaced, by means of fresh nerve taken from a rabbit.

The *Times*, in a recent issue, gives the following account of the operation: "Just as there is nothing special in any individual human nerve, and as any one of them would be capable of discharging the duty of any other, so, it may be assumed, there is no difference between the endowments of the nerves of man and those of the lower animals, which fulfil identical functions in an identical manner. It was, therefore, inherently probable that the nerve of an animal, if a piece could be obtained of the proper size and length, and if transplantation and union could be successfully effected, would suffice to make good any loss of nerve in man; and, in the present instance, which is, we believe, the first of the kind on record, not only have the transplantation and union been successful, but the new piece of nerve seems to have overcome the tendency of the old to undergo degeneration of structure at its divided extremity. A portion, six centimetres in length, of the great nerve of a rabbit's thigh was selected, and was so removed from the freshly-killed animal as to include the natural bifurcation of the main trunk into two branches. The divided stem was secured by stitches to the stump of the nerve in Prof. von Fleischl's arm, and the ends of the branches were secured in like manner to the nerve-terminations which remained in his fingers, and which were rendered useless by their separation from the trunk to which they belonged.

"The whole operation, as a matter of course, was conducted with strict adherence to those principles of antiseptic surgery without which failure would have been more than likely; but, by the observance of which, union, almost anywhere or of anything, can, with a near approach to certainty, be secured. The wound healed kindly; the transplanted nerve soon became at home in its new position; and already, after the lapse of a little more than two months, it is reported that sensation is returning to the fingers. At the same time, there has been no return of pain, and no fresh indication of the development of neuromata, so that hope of an absolutely successful issue may now, with some confidence, be entertained."

Speaking of the above case, the *Lancet* says: "Of late we have often witnessed many successful cases of nerve suture, where, even after the lapse of many years, the peripheral extremity of a severed nerve trunk has been proved to be still capable of exercising its function, with the restoration of motor power and of sensibility to the parts that it supplied. It is, however, a new and most encouraging departure that has been successfully carried out by Dr. Gersung of Vienna on the illustrious physiologist, Professor von Fleischl. Sixteen years ago Professor von Fleischl sustained a post-mortem wound in the right hand, which resulted in the loss of the terminal phalanx of the thumb. The stump became painful, and amputation higher up was succeeded by the formation of painful neuromata on the divided nerve. In spite of repeated excisions, the condition continued to recur, until, two months ago, Dr. Gersung decided to transplant a portion of the sciatic nerve from the rabbit, and to suture its trunk to the trunk of the median nerve, and its popliteal divisions to the distal ends of the branches supplying the thumb and forefinger. The portion thus transplanted and sutured under strict antiseptic precautions measured six centimetres in length. The result, so far, must be most gratifying to the subject of the operation, both as a patient and a physiologist; for he is regaining sensation in the fingers, which affords sufficient evidence that the rabbit's nerve has not only become organically united with the human, but that it is performing its function normally. Moreover—and this is a very interesting feature of the case,—it has not shown the tendency to 'neuromatous' degeneration which marked the original nerve. The case demonstrates the well-accepted fact that the nerves themselves, or rather their axis cylinders, are remarkably prone to regeneration, and that physiologically they are simple conductors of stimuli. It suggests, further, the possibility of more satisfactorily dealing with other morbid 'habits' of nerves—such, for instance, as facial tic,—which, in many cases, have resisted nerve resection and nerve stretching. Why this replacement of a portion of a nerve which has a morbid tendency by a portion from a healthy nerve should annul this tendency is quite unexplained. It appears to have done so in this case, and therefore it may be inferred that the method may succeed in others which have hitherto resisted all endeavours at cure by simpler means. Lastly, the case is interesting as proving the practical identity that exists between nerves of different species of animals—a fact which anatomy has long suggested, but which has only now received physiological proof."

Highest Award, Only Gold Medal, London, 1884.

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"ISABELLA THWAITES."

Public Health

"Health is the first Wealth."—*Emerson.*

HOW TO WARD OFF INFECTIOUS DISEASES.

Dr. Buchanan, of the Local Government Board, has issued the following general memorandum on the proceedings which are advisable in places attacked or threatened by epidemic disease.

1. Wherever there is prevalence or threatening of cholera, diphtheria, fever, or any other epidemic disease, it is of more than common importance that the statutory powers conferred upon sanitary authorities for the protection of the public health should be well exercised by those authorities, acting with the advice of their medical officers of health.

2. Proper precautions are equally requisite for all classes of society. But it is chiefly with regard to the poorer population, therefore chiefly in the courts and alleys of towns, and at the labourers' cottages of country districts, that local authorities are called upon to exercise vigilance, and to proffer information and advice. Common lodging-houses, and houses which are sub-let in several small holdings, always require particular attention.

3. Wherever there is accumulation, stink, or soakage of house refuse, or of other decaying animal or vegetable matter, the nuisance should as promptly as possible be abated, and precaution should be taken not to let it recur. Especially examination should be made as to the efficient working of sewers and drains, and any defect therein, and any nuisance therefrom, or from any foul ditches or ponds, should be got rid of without delay. The ventilation of sewers, the ventilation and trapping of house drains, and the disconnection of cistern overflows and sink pipes from drains should be carefully seen to. The scavenging of the district, and the state of receptacles for excrement and of dust-bins, will require close attention. In slaughter-houses, and wherever animals are kept, strict cleanliness should be enforced.

4. In the removal of filth during periods of epidemic disease, it is commonly necessary to employ chemical agents for reducing or removing the offence and harm which may be involved in the disturbance of the filth. In the removal of privy contents these agents are more particularly wanted if the disease in question be cholera or enteric fever. The chemical agent should be used liberally over all exposed surfaces from which filth has been removed. Unpaved earth close to dwellings, if it be sodden with slops or filth, ought to be treated in the same way.

5. Sources of water-supply should be well examined. Water from sources which can be in any way tainted by animal or vegetable refuse, especially those into which there may be any leakage or filtration from sewers, drains, cesspools, or foul ditches, ought no longer to be drunk. Above all, where the disease is cholera, diarrhœa, or enteric fever, it is essential that no impure water be drunk.

The liability of leaky water-pipes to act as land drains and to receive foul matters as well as land drainage through their leaks is not to be overlooked. And such leaky pipes, running full of water with considerable velocity, are liable to receive, by lateral insuction at their points of leakage, external matters that may be dangerous. This latter fact is not recognized so generally as it should be; and ignorance of it has probably baffled many inquiries in cases where water services have in truth been the means of spreading disease.

If, unfortunately, the only water which for a time can be got should be open to suspicion of dangerous organic impurity, it ought at least to be boiled before it is used for drinking, but then not to be drunk later than twenty-four hours after it has been boiled. Filtering of the ordinary kind cannot by itself be trusted to purify water. It cannot be too distinctly understood that dangerous qualities of water are not obviated by the addition of wine or spirits.

6. When there appears any probable relation between the distribution of disease and of milk supplies, the cleanliness of dairies, the purity of the water used in them, the health of the persons employed about them, and the health of the cows that furnish milk should always be carefully investigated. Even apart from any apprehension of milk being concerned in a particular outbreak of disease, it is desirable that English people should adopt the custom, which is always followed in some continental countries, of boiling all milk at once upon its reception into a house.

7. The washing and lime-whiting of uncleanly premises, especially of such as are densely occupied, should be pressed with all practicable dispatch.

8. Overcrowding should be prevented. Especially where disease has begun, the sick-room should, as far as possible, be free from persons who are not of use to the patient.

Ample ventilation should be enforced. It should be seen that windows are made to open, and that they are sufficiently opened. Especially where any kind of infective fever has begun, it is essential, both for patients and for persons who are about them, that the sick-room and the sick-house be constantly traversed by streams of fresh air.

9. The cleanliest domestic habits should be enjoined. Refuse matters should be speedily removed or destroyed; and things which have to be disinfected or cleansed should always be disinfected or cleansed without delay.

10. Special precautions of cleanliness and disinfection are necessary with regard to infective matters discharged from the bodies of the sick. Among discharges which it is proper to treat as infective are those which come in cases of small-pox and scarlatina from the affected skin; in cases of cholera and enteric fever from the intestinal canal; in cases of diphtheria and scarlatina from the nose and throat; likewise, in cases of any eruptive or other epidemic fever, the general exhalations of the sick. The caution which is necessary with regard to such matters must, of course, extend to whatever is imbued with them; so that bedding, clothing, towels, handkerchiefs, and other articles which have been in use by the sick may not become sources of mischief, either in the house to which they belong or in houses to which they are conveyed. So far as articles of this class can be replaced by rags or things of small value, it is best to use such things and burn them when they are soiled. Otherwise clothing and infected articles should be subjected to the disinfectant of the sick-room or be removed for disinfection by heat.

In enteric fever and cholera the evacuations should be regarded as capable of communicating an infectious quality to any nightsoil with which they are mingled in privies, drains, or cesspools: and after such disinfection of them as is practical, they should be disposed of without delay and under the safest conditions that local circumstances permit. They should not be thrown

into any fixed privy receptacle, and above all, they must never be cast where they can run or soak into sources of drinking water.

(To be concluded.)

A LINCOLNSHIRE SPA.

IN the centre of Lincolnshire there exists a perennial spring of the strongest known bromo-iodine mineral water in Europe. Known for some years to chemical analysts and the medical profession, it has recently been acquired by a syndicate of gentlemen connected with the county, including Mr. E. Stanhope, M.P. (Minister of War), Mr. Chaplin, M.P., and the Attorney-General (Sir R. E. Webster), who are now engaged in the laudable effort of making its advantages generally known. Woodhall Spa is within six miles of Horncastle, midway between Boston and Lincoln, and is situated on a branch line of the Great Northern Railway. The water for which it is famous was discovered in the early part of the century through an abortive attempt to find coal. It runs through a soft, spongy rock, and the spring is computed to yield from 16,000 to 20,000 gallons per day. The celebrated Bad at Kreuznach owes the fame of its cure to similar properties of its waters, but with the difference that "the English Kreuznach" possesses a fluid containing six times more iodine and half as much more bromine as the German. Of these rare and powerful elements every ten gallons contain 7½ grains of iodine and 35 of bromine, accompanying a proportion of chloride of sodium—or common salt—nearly equal to that of the sea, besides considerable quantities of calcium, magnesium, and sulphate, carbonate, and nitrate of soda.

It is for the special constituents of the Woodhall Spa that hundreds of patients yearly betake themselves to Continental Spas ignorant or neglectful of the fact that besides Bath, Harrogate, Buxton, Cheltenham, Leamington, Droitwich, Llandrindod, and Strathpeffer, they possessed, within a few miles of Lincoln, a bromine and iodine spring unrivalled of its kind. Recently, on the invitation of Mr. Stanhope and the other proprietors of the Spa, a company of gentleman connected with the Great Northern Railway, medical men, and others, to the number of about 150, paid a visit of inspection to the new Pump Room and baths. These have been designed so as to enable the management to adopt completely the Kreuznach system of treatment, and they are very elaborately and scientifically constructed, with this object in view. Every grade of temperature is provided for in summer and winter, there are rooms for inhaling or applying the vapour of the mineral waters, and attendants instructed to administer either the bath simply or with massage—in the style of Aix-les-Bains—or the varieties of lave, needle, or local douche, with "packing" or otherwise.

After inspecting the Pump Room, which stands in a park of seventy acres, provided with agreeable drives through glades of lime, oak, and beech, the company adjourned to luncheon in a marquee, Mr. Stanhope presiding. Speaking on the part of the visitors, Dr. Burney Yeo predicted for Woodhall a European and even a world-wide reputation as a health resort. Lord Winchilsea praised the chairman and his colleagues for their enterprise, and especially for that part of their scheme by which it is proposed to erect a hospital in connection with the Spa, so that the poor may have the benefit of the water as well as the rich. Lord Colville of Culross, chairman of the Great Northern Railway, responding for himself and Mr. Oakley, the manager, who was also present, expressed the interest and confidence felt by their company in the success of the Spa. By the fast train service to the north the journey to Woodhall occupies three hours. The surrounding country, it may be stated, is very flat, being part of the great Lincolnshire plain, but it is claimed for it that it is very salubrious, and that it has "the smallest rainfall of any part of England."—*Daily Telegraph.*

THE INTERNATIONAL IRONMONGERS' IRON AND METAL TRADES' EXHIBITION.—This exhibition will be held at the Royal Agricultural Hall, Islington, N., from Monday, November 12th, to Saturday, November 24th, 1888. The annual success of the various trade exhibitions held year after year is conclusive evidence that nothing is more conducive to the interests of any particular trade than the affording of an opportunity to all its members to meet, consult together, and inspect the multifarious novelties in the way both of manufacture and design that the ingenuity of man conceives from time to time. Hitherto these exhibitions have been confined to certain trades, the results being so satisfactory, both to exhibitors and visitors, that they have been continued annually; but, for some unexplained reason, the members of the "Ironmongers', Iron, and Metal Trades" have never been afforded these opportunities. There can be no doubt that this branch of commerce would be more benefited than any other by a comprehensive exhibition, devised and carried out on lines similar to those of other successful ones, avoiding those ideas which have turned out failures and adopting those that have proved beneficial; but up to the present no person has been found with sufficient enterprise and experience to initiate what must naturally be an enormous undertaking. As it is at present, the country retailer is dependent upon the enterprise of the few larger firms who send their representative with samples for his inspection. Even if he comes to town his stay is of necessity limited, and he has no time to visit warehouse after warehouse, and thus probably misses important novelties and latest inventions; but were all the various branches gathered together under one roof, he would gladly avail himself of what would practically be a huge emporium of manufactures in the Ironmongery and Metal Trades. With these objects in view, Mr. Harry Etherington has much pleasure in announcing that he has made arrangements to hold the "Ironmongers', Iron, and Metal Trades' Exhibition" at the Agricultural Hall, N., on November 12 and following days. A glance at the wide field which the exhibition covers will show at once that it is to be of a thoroughly comprehensive character, and will embrace *everything* that can fairly be included under the title of the exhibition. Mr. Etherington will devote all his experience gained in exhibition work at home and abroad during the past ten years to make this exhibition a thorough success, and will spare no expense or effort in attaining this end. The exhibition will be so comprehensive that all classes of society will be attracted to it: Architects and builders will come to see the latest thing in girders, railings, tanks, cisterns, &c.; the clergy to view the latest designs in ecclesiastical art work; electricians to inspect the most recent improvements; ladies to pick up the prettiest metal goods for their drawing-rooms; housewives to investigate labour-saving appliances for the kitchen and the dairy; and sportsmen to select guns, revolvers, &c.; in fact, an enormous attendance of purchasers is fully assured. Every effort will be made to attract the general public, and the machinery in motion department is certain to prove a most popular section.

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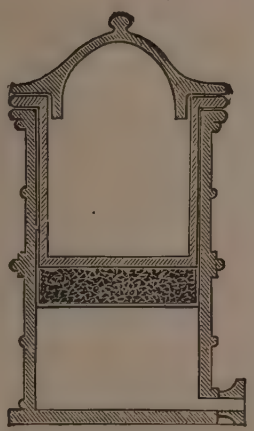

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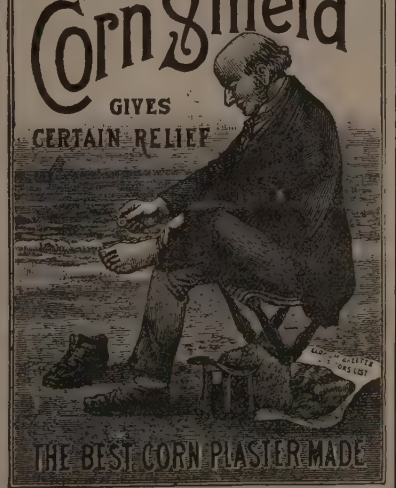

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Jottings from the Journals

"Th' ingredients of health and long life are
Great temperance, open air,
Easy labour, little care."—*Sir Philip Sydney.*

The Progress of Cremation.—In Italy cremation was legalized in 1876, when Milan was the first city to adopt it. Since that date 518 cremations have taken place in Milan, notwithstanding the censure of "The Holy Office"—a council of which the Pope is president, and which includes most of the Cardinals of the Roman Church, all of whom denounce "the detestable practice of burning human bodies." Notwithstanding this prohibition, the custom is gaining ground. A correspondent, writing from Naples, says: "The example of Milan was soon followed by Lodi, where a simple but perfect apparatus was erected in 1877; and subsequently Cremona followed suit. Then Rome erected a small temple on the declivity of the cemetery in Campo Varano, in which the mortal remains of many illustrious patriots have been consumed. (One hundred and fifty-five persons have already been cremated in Rome itself, out of a total of 952 thus disposed of in Italy since 1876.) At Varese an elegant temple has been built on the highest point of the new and beautiful cemetery, dominating all the valley below. Novara, Venice, Florence, Pisa, Leghorn, Turin, Spezia, Udine, and Padua have either already erected crematories or are now doing so; and associations for the same purpose have also been formed at Domodossola, Como, Bologna, Modena, Pavia, Codogno, Venice, Piacenza, Leghorn, Novara, Ancona, Genoa, Parma, Verona, Pisa, Carpi, Asti, Pistoja, Intra, and San Remo, numbering upwards of six thousand members, of whom a considerable number are women. The system does not exclude religious ceremonies; and from a technical point of view the apparatus in use satisfies all sanitary and economical exigencies, the work being accomplished effectively at a cost of 10 to 16 fr." In France an important advance was made when in 1885 the Prefecture of the Seine decided to spend £8,000 in the erection of a crematorium in the great Parisian cemetery Père Lachaise. Well would it be for London and Glasgow were their civic authorities to do likewise for such horrible receptacles for the dead as the cemeteries at Ilford and Dalbeth. Societies for securing the legilization of the process also exist in Belgium, Holland, and the United States. But no country in Europe has taken up the subject so systematically as Germany. Strong agitation in its favour commenced in Berlin, Leipzig, and Dresden; and Gotha very soon erected a large crematorium in which upwards of fifty bodies were consumed between 1878 and 1881. By 1885 the movement had so widely commended itself that a petition for its official introduction was laid before the Reichstag with 23,365 signatures. Of these 1,942 were those of physicians, 1,040 of lawyers and professors, 849 schoolmasters, and 6,000 working men. But only 361 women and 10 Protestant clergy signed this document. Yet the attitude of the Church in Germany is strictly tolerant. In Gotha the full ceremonies of the Church accompany the cremation. The Bavarian Consistory allows the clergy to perform the sacred rites ere the body is carried to the burning; and the Prussian High Consistory remains negative, neither authorizing nor prohibiting the celebration of the Church services. For the present, therefore, Germany has the honour of leading this movement among the nations of Europe.—*C. F. Gordon-Cumming in the "St. James's Gazette."*

The Sightseer's Headache.—Of the lighter penalties which pleasure entails, none probably is more widely known and felt or more persistently endured than the sightseer's headache. It is nature's tax levied on the comfort of that great body of busy idlers to which we all at some time or other belong. It is endemic among the frequenters of museums, picture galleries, and exhibitions, varying somewhat perhaps in different cases in its precise causation, but associated always in a manner significant of its origin with the habits of the observant loiterer. The circumstances in which it arises afford the most reliable clue to its true character. Among these, temperature, atmosphere, and strain both of body and mind, though commonly combined, play their several parts in varying degrees of activity. The influence of a warm and close atmosphere as a cause of headache is too well known to require more than a passing notice. The torpid congestion of tissue which it tends to induce, and from which the brain is not exempted, is familiar to most of us as a morbid process too often illustrated in our painful experience. It contributes its proportion, doubtless, towards that total of malaise which affects the visitor to a crowded picture-gallery or assembly-room, and culminates in the localized ache which renders the slightest mental effort a weariness. The very general prevalence of this variety of headache, however, and its independence in many instances of any vitiation of atmosphere, teach us to look for its explanation in other causes. The effort of mind implied in long-continued observation, even though this does not involve the strain of study, has probably an appreciable, though a secondary, influence. Fatigue certainly has an important share in its production; but it is with most persons rather fatigue of muscle than of brain. The maintenance of the upright posture during several hours of languid locomotion, the varied and frequent movements of the head commonly in an upward direction, and the similar and equal restlessness of eyes whose focus of vision shifts at every turn as a new object presents itself, form a combined series of forces more powerful in this respect than the sunlight and frequent changes of mental interest and attention by which they are accompanied. The muscular strain implied in these movements is necessarily very considerable. It affects more or less every member of the body, but the distant localization of the resulting ache has probably much to do with the unusual activity of the cervical extensor and rotator muscles and of the muscles which move the eyeball. Whatever the minor influences at work, therefore, there can be little doubt that mere fatigue is primarily accountable for this most general form of headache, and that rest and nourishment are most reliable antidotes. The utility of stimulants for this purpose is necessarily temporary and deceptive. One improvement on existing arrangements ought to be of real assistance to the suffering sightseer if more generally introduced by responsible authorities. The comparative scarcity of seats in many places of amusement has often been noticed. It would be much to the public advantage if this want were supplied. For the attendants at exhibition stalls a chair for occasional use is an absolute necessity.—*Lancet.*

An Ink for Rubber Stamps.—Take aniline, rose or violet, ninety grains; boil this in one ounce of distilled water: then add half a teaspoonful of glycerine and half as much molasses. The crystals of the aniline dye must be worked up with the boiling water and the other ingredients added in succession. This ink will not readily smear, and yet does not easily dry upon the pad.

Our Bookshelf

"Reading maketh a full man."—*Bacon.*

NATURE AND HEALTH.

Nature's Hygiene, A Systematic Manual of Natural Hygiene, containing a Detailed Account of Eucalyptus, Pine, and Camphor Forests, and Industries connected therewith. By C. T. Kingzett, F.C.S., &c. (London: Ballière, Tindall & Cox. 1888.) (Third Edition.)

THIS work was fully reviewed in the pages of HEALTH on the appearance of its second edition. We predicted for it a wide reading, and the production of a third edition is a proof of the popularity it has attained. The author is known as the accomplished chemist, to whom the world owes "Sanitas" and the valuable disinfectants included under that general title. What Mr. Kingzett has to say in this volume regarding the manner in which Dame Nature works as a hygienist, may, therefore, be read with attention and interest. His pages certainly disclose the existence in nature of a marvellous series of means and expedients for keeping the air pure and healthy; and it is to Mr. Kingzett's credit as a chemist that he has succeeded so well and so fully in imitating many of the procedures of nature in his laboratory work.

The new features of this third edition are the accounts of camphor forests and of camphor oil and its uses. To a great extent, however, most of the sections of the work have been re-arranged and re-written. Readers of previous editions will not, therefore, find their time wasted in a perusal of this new issue of the work. Many facts of great interest to students of health-science in reference to germ-life and to disinfection will be found stored up and explained in Mr. Kingzett's pages. He is an advocate of the theory that germs do not produce diseases by a direct mechanical or other action in or upon the body, but by their production of poisons which result from the action of the germs on the media wherein they grow and multiply. Our author remarks that until lately this view of germ action in the production of disease has not received much credence, but we fancy Dr. Richardson has for years past advocated some such opinions. The mere consideration of the analogous action of yeast in producing fermentation seems to lend support to this view of matters, which, needless to say, Mr. Kingzett illustrates felicitously in his pages.

We have perused with special interest what our author has to tell about the camphor tree and the properties of its products. Camphor obtained from the tree of that name (*Laurus camphora*) is manufactured largely in the Island of Kio Shui, a tree 100 years old being rich in this product. The tree is cut down in order to extract the camphor, but, by a stringent law, another tree is always planted in place of that which has fallen. Borneo camphor differs chemically from the ordinary product, while it can be produced artificially from common camphor. Camphor forests, like that of the pine and eucalyptus, act in the interests of nature's hygienic operations. The oxygen of the air is absorbed by the essential oils which are continually being emitted, and this simple process, says our author, gives rise to a number of active chemical substances which purify the air and make healthy existence an easy possibility in the regions where such trees flourish and grow.

We warmly commend this book to the attention of all students of health-science and to the general reader as well.

POPULAR HEALTH-KNOWLEDGE.

Health Lectures for the People (Illustrated). Eighth Series. Delivered in Edinburgh during the winter of 1887–8. (Edinburgh: Macniven & Wallace. 1888.)

THE Edinburgh "Health Society" has for years past done a most excellent work by arranging for the delivery of Saturday evening lectures by eminent medical men on health topics. The present volume includes five lectures, dealing with subjects ranging from Pleasant Surroundings and how they affect Health and Happiness to Heredity and Channels of Infection. All the lectures are singularly lucid and self-explanatory, characteristics which we may regard as exemplifying the highest merit in such means of education. The book will form pleasant and instructive reading. It will be especially welcome to those who were privileged to attend the lectures, and who may desire to digest at leisure the information which was orally conveyed to them.

"All prosperity begins in obedience."—*Ruskin.*

RATHER BAD FOR HOMŒOPATHY.—During the recent discussion upon homœopathy it was alleged that homœopathic chemists concocted all their pilules from pure sugar and distributed them into boxes variously labelled. The Berlin Homœopathic Society was lately informed that the prescriptions of its members were ignored by the chemists, who mixed two or three innocent drugs and sent the patient confidingly home. To test the truth of these allegations eighty different burlesque prescriptions were written out in Latin and sent to as many chemists. The bait was swallowed by seventy-seven out of the eighty chemists: the other three returning the prescriptions with the remark that they did not understand them. The seventy-and-seven, who had presumably not looked at the prescriptions, but had compounded mixtures that were no doubt perfectly harmless, are now receiving some polite attentions from the Public Prosecutor.

THE TURKEY SPONGE FISHERIES. — Sponge fishing extends all along the coast of Batroon, Tripoli, Latakia, and the island of Ruad, north of Tripoli. It is not confined only to native fishermen, for many Greeks come over from Kalimno, Stanchio, Rhodes, and Samos, in their little crafts, to share this traffic with the Syrians. The catch commences in June and extends to October, this season being the most suitable owing to the calmness of the sea. The diver generally remains at the bottom of the sea from sixty to eighty seconds, unlike the Australian pearl-shell fishers, who often remain under water for hours at a time. This is due to the fact that the native Syrian diver has simply an open net around his unprotected body, and uses no instrument of any kind in collecting his sponges; he cannot be induced, like the Turks, to adopt the diving dress or "Skafander." The depth to which Syrian divers descend is from 25 to 175 feet; below these depths no good sponges are said to be found. Three kinds of sponges are known here—prime, seconds, and the red ones, taken near Batroon. The latter are by far the best. They have to be cleaned and freed from sand and then pressed. The best qualities are exported from Beirut to Paris direct, the others go almost exclusively to Trieste, while the Greeks send their share of the catch to different markets in Europe. The average annual catch is estimated at about $150,000 in value. The local authorities exact a tax of 10 per cent. from those engaged in the business.

IMPORTANT ANNOUNCEMENT.

BONUSES TO SUBSCRIBERS TO "HEALTH."

Health, as our readers are aware, may be obtained of all Booksellers and Newsagents, and at the Railway Bookstalls, on the day of publication. It may also be ordered from the Publisher, 2, Paternoster-square, London, E.C., who will send the journal, post free, for a year, on receipt of postal orders for 10s. 10d.

As many of our readers who live in remote districts prefer to obtain Health from the Publisher direct, and as we are desirous of increasing the already large number of subscribers who give us a yearly order for the journal, we offer the following Free Gifts and Bonuses to all who subscribe to Health for one year or longer :—

(1.) To each Subscriber who remits 10s. 10d. to the Publisher, entitling him (or her) to receive one copy of Health, post free, for one year, we shall present a copy of Dr. Andrew Wilson's work, entitled "A Manual of Health Science" (Longmans & Co.), value 2s. 6d.

(2.) To each subscriber who remits 21s. 8d., entitling him or her to receive two copies of Health weekly, post free, for one year (or one copy for two years), we will present Dr. Richardson's "Ministry of Health" (Chatto & Windus), value 6s. The copies of Health so ordered may be posted to separate addresses.

(3.) To each person who subscribes 32s. 6d., for three copies of Health, post free, weekly, for one year, we will present the volume by Dr. Richardson mentioned above, and also the handsome, illustrated book entitled, "Studies in Life and Sense," by Dr. Andrew Wilson (Chatto & Windus), value 6s.—being a free gift of the total value of 12s.

The bonus last mentioned will also be presented to anyone who succeeds in obtaining three yearly subscribers to Health, and who remits to the Publisher the sum of 32s. 6d., together with the names and addresses of the persons to whom the copies are to be posted each week.

As the literary gifts above-mentioned constitute books containing solid and reliable information regarding health and other matters of popular scientific interest, it will be seen that the above scheme, while intended to increase our already large circulation, also offers distinct advantages to new subscribers who guarantee by their subscriptions a year's support to this journal. All communications regarding subscriptions and other purely business details connected with Health should be addressed directly to the Publisher, 2, Paternoster-square, London, E.C., and *not to the Editor*.

We have pleasure in directing the attention of our readers to the prospectus of the Health Insurance Corporation (Limited), with a Share Capital of £100,000, of which *only* £1 *per share will be called up*. If any Board of Directors is calculated to create confidence in the minds of the public the Board of this Company is pre-eminently so, each member of which has qualified himself to the extent of £1,000 in shares. The objects of the Company are well defined, and the prospect of business is very great, and cannot but be remunerative to shareholders. It is well to note that the Directors do not receive any fees except by the free will of the shareholders. We have frequently expressed the opinion that such a society would be of great benefit to many, and more especially to the middle class of society, to whom it will be an immense boon.

Sanitary Appliances, Etc.

MESSRS. HENDERSON'S BISCUITS.

We have received from Messrs. S. Henderson & Sons, of the Grove Biscuit Factory, Edinburgh, samples of their "Perfect Food" Biscuits, and of their "Wheatena" Biscuits. These new food-products must receive high commendation both from the excellence of their manufacture and from the care displayed in their preparation, as well as from the admirable and ingenious way in which the compounds are combined to form—in the case of the "Perfect Food" Biscuits—a very efficient dietary. As most of our readers are aware, the food-principles necessary for the support of life include nitrogenous (or flesh-forming) and non-nitrogenous (or force-producing) foods. This distinction, although not a rigid one, is sufficient to separate the albuminous or nitrogenous principles of food from the starches and sugars and fats and oils, which are rich in energy, and which constitute the foods whereon the chief muscular work of the body is performed. From an analysis of Messrs. Henderson's "Perfect Food" Biscuits made by Dr. Drinkwater, of the Edinburgh Medical School, the excellent character of these food-products may be learned. Dr. Drinkwater's report runs as follows :—

"Edinburgh School of Medicine.—*Chemical Laboratory*, 41, *Chambers-street, Edinburgh, April 23rd*, 1888. Results of analysis of biscuits received from Messrs. Henderson & Sons. Marks—"Perfect Food Biscuit" :—Moisture, 11·1 per cent.; fat, 1·5; ash, 1·88; albuminoids,* 18·61; carbohydrates, 66·99.

"In order to determine the special food-value of these biscuits, I have calculated out the various food-equivalents in eight ounces of the biscuits. My results are as follows :—

	In ounces and tenths.
Moisture	·89
Fat	·12
Ash	·1504
Albuminoids (flesh-formers)	1·5000
Carbohydrates (starches and sugars) ...	5·3500
	8·0104

"These results, when further calculated out to grains of nitrogen and carbon in the eight ounces yield results as follows :—

	Nitrogen.	Carbon.
Moisture	— ...	—
Fat	— ...	41·472
Ash	— ...	—
Albuminoids	103·5 ...	349·5
Carbohydrates	— ...	1038·97
Total in grains ...	103·5 ...	1429·942

"From these results I am of opinion that these biscuits contain the ingredients of a perfect dietary, combining all the advantages of a mixed diet, and supplying the necessary elements, and in the proper proportion as required for the nourishment and maintenance of the human body."

The chemical analysis of these biscuits thus clearly proves their admirable character, and entitles them to the name of "Perfect Food." For the due nutrition of old and young alike, we should recommend the use of these biscuits in preference to the many brands which are made without reference to their specially nutritive qualities.

The "Wheatena" Biscuits made by Messrs. Henderson, as the name indicates, contain a large proportion of the cortical parts of the grain, and are thus specially bone-forming in their character; while, for the relief and cure of digestive ailments, and specially of constipation, these latter biscuits should prove highly valuable. We may add that the "Wheatena" Biscuits, like the "Perfect Food" Biscuits, are of most palatable nature, and are extremely pleasant to the taste.

Pat's Faith Cure.—An incident, of recent occurrence in New York is a pertinent illustration of the "faith cure" and the "Christian science" cure, and shows wherein any efficacy they possess consists. An eminent physician of large practice gives certain hours, as many of his profession do, to free consultation and prescribing for patients who are too poor to pay a doctor's charges. In one of these periods an Irishman presented himself among the sufferers who desired relief, and showed the doctor his knee, which, for some cause, was giving him

* Containing nitrogen, 2·94.

much distress. After an examination of Pat's affected knee, the doctor said, "Put a belladonna plaster on your knee, and wear it there for a few days, and then come and see me again." "A phwat?" queried the puzzled patient. "A belladonna plaster," repeated the physician. But as Pat showed by his looks that he was as much mystified as ever, the doctor wrote upon a slip of paper the prescription and directions, and the Irishman took it away with him. He returned on the third or fourth day after, and, with a rejoicing ring in his voice, told the doctor that he was a "dale betther," and the pain had almost disappeared from his knee "intoirely." The doctor inquired if he had faithfully applied the plaster as directed, and Pat replied that he had, and shoving up his trousers leg he displayed to the doctor's astonished gaze, securely fastened round his knee, not the belladonna plaster, but the prescription paper which the doctor had given to him. It had worked the cure, or rather the faith which Pat had in its potency had healed his ailment by letting nature have her own way and helping her curative power by his own mental acquiescence, or in other words his faith.

Our Letter-Box

"Conference [maketh] a ready man. —*Bacon.*

NOTICES TO CORRESPONDENTS.

All Communications for the Editorial Department (including Books for Review, Specimens of Sanitary Appliances, &c.), to be addressed to "THE EDITOR OF HEALTH," 2, PATERNOSTER-SQUARE, LONDON, E.C. *Those intended for the Publishing Office to be sent to* MR. A. P. WATT, THE PUBLISHER, *at the same address.*

RULES FOR CORRESPONDENTS.

OWING to the mass of letters which reaches us each week, we respectfully direct the attention of Correspondents, desiring replies in the LETTER-BOX DEPARTMENT of HEALTH, to the following rules:—

1. All questions are answered free of charge in the columns of HEALTH.
2. All letters must be legibly addressed to "The Editor of HEALTH, 2, Paternoster-square, London, E.C.," *and to no other address.*
3. Questions to which answers are desired by post, are so replied to solely at the Editor's discretion. If no answer is sent by post, the query will be replied to in the "Letter-Box" columns of HEALTH. A stamped addressed envelope must accompany all queries to which a private reply is desired.
4. Addresses of physicians and surgeons will, as heretofore, be forwarded FREE to Correspondents on their enclosing a stamped addressed envelope for reply.
5. Correspondents are requested to write on one side of the paper only, and to make their inquiries as brief as may be consistent with clearness.
6. From the necessity of sending HEALTH to press early in the week, no Correspondent can be replied to in the "Letter-Box" columns in the same week in which the inquiry is received. Replies crushed out of any issue will be found in the succeeding number.
7. No Post Cards must be used in sending queries. Violation of this rule deprives the sender of the privilege of a reply.

LETTERS TO THE EDITOR.

HEALTH FOR THE PEOPLE.

SIR,—Amid all the agencies for diffusing a knowledge of hygiene, I feel that there is still a want of some method of instilling such knowledge into the heads of the industrial and poorer classes who, from the conditions under which circumstances compel them to live in large cities, require it so much. I naturally turn to HEALTH in this difficulty.

The establishment of Medical Officers of Health and Sanitary Departments has done much to improve the public health. Periodicals, such as HEALTH, and popular lectures have also been the means of diffusing useful knowledge, and (perhaps as important a work) have created a feeling of respect for and approval of sanitary legislation. But you are aware, Sir, that there is a great deal within the house itself which sanitary officers cannot touch, and that dangerous habits exist, which only the instructed individual will attempt to reform. Popular lectures occurring only at great distances of time, and attended often as a means of passing away an idle hour rather than for the acquisition of information, whilst having a valuable use as already stated, are not persistent enough and minute enough to leave exact impressions on the hearers.

What is still wanted seems to be some method which would take hold of the masses in our large cities, form them into small classes, and, by simple teaching and frequent reiteration, impress upon them plain health-information of a valuable kind. A long list of subjects should not be attempted. Instruction should be confined to such points as really occur in the daily life of the people in the district, leaving information on allied matters to be given otherwise, or at a later stage. A short course only should be attempted, because working lads and girls and older people might be induced to join and regularly attend, say, ten meetings, when they would be alarmed at the idea of beginning a study that would last all winter. The lessons should be directed towards preparing for an examination at the close of the course.

How, then, I ask, is the formation of such classes to be encouraged to such an extent as to influence the national death-rate by reaching every corner of our cities?—I am, &c.,

B. B. B.

QUERIES AND ANSWERS.

REPLIES: GENERAL, SANITARY, AND MEDICAL.

[Readers of HEALTH will kindly note that when back numbers of the journal are desired, the letters containing such requests and stamps for the numbers should be addressed to the PUBLISHER of HEALTH, 2, Paternoster-square, London, E.C., and *not to the Editor.*]

NERVOUS EXHAUSTION.

PULVERMACHER'S World-Famed GALVANIC BELTS for the Cure of NERVOUS EXHAUSTION and DEBILITY, have received testimonials from three Physicians to Her Majesty the Queen, and over Forty Members of the Royal College of Physicians of London.

The distressing symptoms of NERVOUS EXHAUSTION and DEBILITY are speedily removed by means of **PULVERMACHER'S world-famed Galvanic Belts**, which are so arranged as to convey a powerful electric current direct to the affected parts, gradually stimulating and strengthening all the nerves and muscles, and speedily arresting all symptoms of waste and decay.

Dr. VINES, Fellow of the Royal College of Physicians, writes 19th September 1885: "Having used MR. PULVERMACHER'S BELTS for many years, in the course of medical practice, I am in a position to speak of their great value as a curative agent in cases of nervous disease or functional malady where Electricity is likely to be serviceable. I am entirely convinced of their efficacy."

Dr. C. HANDFIELD JONES, F.R.C.P., F.R.S., Physician to St. Mary's Hospital says: "I am satisfied that MR. PULVERMACHER is an honest and earnest labourer in the field of science, and I think he deserves to meet with every encouragement from the profession and scientific men."

Dr. GOLDING BIRD, M.D., Physician, Guy's Hospital, says: "I can hardly recommend MR. PULVERMACHER'S INVENTION too strongly to the notice of my medical brethren."

For full Price List and particulars, see New Pamphlet, "**GALVANISM: Nature's Chief Restorer of Impaired Vital Energy.**" Post Free from

PULVERMACHER'S
GALVANIC ESTABLISHMENT,
194, Regent-street, LONDON, W.

A. PATERSON. — Try the Lanoline Cold Cream (made by Burroughs, Wellcome & Co., Snow-hill, London, E.C., and to be had from any good druggist). Avoid chills and use Bayley's Spermaceti Soap, 17, Cockspur-street, Pall-Mall, London, S.W.

JOHN.—Symptoms of indigestion: rest rigidly after your meals, and take five drops of Pure Terebene on a piece of sugar after food when the symptoms trouble you.

TREMANS.—The person who advertises in the handbill is a quack. If you wish to be robbed of money and health, by all means visit him. You are simply over-excited and nervous, and so long as you dwell on your fancied ailments you will not recover your tone. All you require is to practise care in diet, to avoid indigestible foods, to take plenty of open-air exercise, to take a cold or tepid sponge bath each morning, and fifteen drops Fer Bravais after your meals in water. Take no other drugs, and for the rest, follow out the directions as to health in the pamphlet you read.

HARRY.—Give up all beer and alcohol, rest as much as possible, exercise strict cleanliness, washing night and morning with soap and tepid water, and use a weak injection of Condy's Fluid and tepid water thrice daily. Each alternate morning take a dose of Lamplough's Pyretic Saline, and avoid excess of flesh-food.

DYSPEPTIC.—We advise you, in the first place, to avoid constipation by the use of Cascara Cordial, taking twenty or thirty drops in water regularly once a day, between your meals, or on rising. For the rest, try a vegetable dietary, in great part, taking your meat food mostly in the shape of strong soups and boiled white fish. Rest after food regularly, and by all means take a cold or tepid bath (fresh or salt) each morning on rising. You require no medicines other than the Cascara Cordial as above ordered, but you must take more open-air exercise. Lactopeptin may be tried if you have deficient assimilative power. Write again, if not cured.

ENQUIRER.—We should say Strathpeffer is a place likely to benefit your case, although Buxton is also famed for the treatment of such maladies as yours. See advice given above to "Dyspeptic," and, if we can be of further service, write again.

S. THOMAS.—Use the ointment recommended to "Aggie" in last week's HEALTH. Avoid excess of flesh food, and try a partly vegetarian dietary. If not cured, write again.

A SUFFERER. — Have you tried Messrs. Dowie & Marshall, Bootmakers, Strand, London, W.C.? If not, give their system of health-boots a trial. The apparatus for the toe can be had from Messrs. Krohne & Sesemann, Duke-street, Manchester-square, London, W.

M. HOLLAND.—We advise you at once to begin the diet recommended to "Dyspeptic" in the present number, and also to use the Cascara Cordial as noted in the advice indicated. Your symptoms are due to constipation and sluggish liver which the above treatment will probably cure. To dinner each day take a little Boköl (Messrs. Davis, Bergendahl & Co., Newcastle-on-Tyne), and try also Dahl's Cakes, advertised in our pages (taken with tea or coffee), as an aid to the diet-treatment prescribed to you. For the relief of your skin trouble, see advice given to "Aggie" in last week's HEALTH. Write again if not bettered.

CHRISTCHURCH.—1. Dahl's Cakes (advertised in our pages) and Cascara Cordial—dose of latter twenty drops in water once daily. A teaspoonful of glycerine used as an enema is also a capital and safe remedy. 2. Why not try the Saccharin tabloids made by Messrs. Burroughs, Wellcome & Co., Snow-hill, London, E.C. It is preferable to glycerine for the purpose you name.

G. JONES.—1. Use "Sanitas" Powder for the closets, and for soaking the clothes preparatory to washing use "Sanitas" Fluid suitably diluted with water, according to directions given with the fluid. 2. No: it is a bacillus. 3. About blood-heat—98·5 Fahrenheit.

B. C. P.—Dover's Powder is given in doses (for adults) varying from ten to fifteen grains. It is a valuable medicine, promoting skin-action especially.

GEORGE V.—Try the following for the cure of chapped hands: Borax, half a drachm; glycerine, half an ounce, and soft water, two ounces. If the cracks in the hands are difficult to heal, try an ointment composed of red oxide of mercury, fifteen grains, and lard, one ounce.

ESTELLE.—Shave the head weekly, wash it twice daily with tepid water and Bayley's Soap, and apply boracic ointment thereafter. Give Fer Bravais internally, ten drops after meals, in water.

VOSGES.—1. Quotidian ague is "daily ague," in which the paroxysm occurs in the morning; in sweating or "quartan ague" the paroxysm comes on once in 72 hours, in the afternoon. 2. Quinine, certainly.

E. BILL.—We should say dry cupping would relieve the ailment most quickly and effectively.

O. P. M.—The affection is simple colic, and you must alter your food habits. Eat less potatoes, and avoid cheese. When the paroxysm comes on try the following draught:—Compound decoction of aloes, one ounce; chloric ether, thirty minims. Mix. This may be repeated in four hours, if necessary.

GERBILLES.—1. The term you mean is "prolapsus," which means a "falling down" of any part. 2. No, but peptonizing the food will do as well. Use Fairchild's Powders.

A. PRYDE.—Banting's fat-cure consisted in his taking plenty of exercise, in omitting starches, and sugars, and fats from his diet, and in limiting the fluids he took. Dr. Pavy condemns it as a diet apt to lead to inanition. The modern treatment of obesity is to restrict starches and sugars, but to administer fat which does not go to form fat but to assist in the assimilation of other foods. See Ebstein's book reviewed in HEALTH, No. 57, to be had from the Publisher, price 4½d., post free.

ALLOA.—A very cooling and agreeable lotion, which you should use, is made by mixing together half a drachm of Goulard's Extract, two drachms spirits of wine, and eight ounces of water. Apply this to the boil constantly on a piece of lint.

E. C. C.—You must avoid constipation—see directions given to "Dyspeptic" in the present number, and take two teaspoonfuls of the following electuary at bedtime:—Confection of senna, one ounce; sublimed sulphur, half an ounce; and syrup of tolu sufficient to make an electuary.

PETER F.—A freezing mixture is made by adding sal ammoniac, five parts, to five parts nitrate of potass and sixteen parts of water.

MARION L.—Paint the lumps with tincture of iodine daily till the skin becomes tender, and internally take cod liver oil, with syrup of iodide of iron added to it. Your druggist will add the requisite quantity of iron to the oil (say three drachms of the iron and one ounce of mucilage to six ounces of the oil), and take of this a dessertspoonful, after meals, thrice daily. Go to the seaside, if you can, for a holiday, and take tepid salt baths.

A. EDEN.—The prescription you enclose is that of a "reverend" quack, who will certainly swindle you. The physician you consulted told you truly. There is nothing the matter with you, and your perusal of quack literature has simply made you nervous. If you take our advice, you will simply neglect your so-called symptoms, and take plenty of fresh air and exercise. If you begin to consult quacks, you will soon be ruined, both in health and purse.

A DESERVED WORD OF PRAISE.

From the "Woodbridge Reporter."

WE have always been very particular about making editorial comment upon the wares of advertisers who make use of the columns of our paper. When we know of anything that is worthy of special mention, we are frank enough to say so, but until we are satisfied we cannot endorse them. This is especially the case with the large number of proprietary medicines which are placed before the public through the public prints. We know there is a prejudice against the use of what are known as unauthorized proprietary medicines, and in many cases the prejudice is well founded, but there has lately come under our notice a case which, upon investigation, we have decided to give to our readers. Many of them will doubtless remember the severe illness of the little three-year-old son of Mr. Robert H. Durham, of 3, Warren-hill, Woodbridge, and his remarkable recovery. One year ago last March the little fellow was taken ill with dropsy. Large water sacs formed over his eyes, his legs were swollen to the size of a full-grown man, and his whole body puffed up to an alarming extent. Said Mr. Durham to the writer: "For eight weeks he was under the doctor's care, but without any beneficial result. During this time he was confined to his bed, his stomach would retain no food, and we were compelled to keep him wrapped up in blankets and close to the fire, in order to keep him warm and alive. His water was heavy with albumen, and frequently after boiling it became as hard as the white of a cooked egg. Several doctors were consulted, but all agreed that he could not live. I finally decided to give him Warner's SAFE Cure, which I was informed could be had of all chemists, and the immediate result was an increase in the flow of water. We continued giving him the SAFE Cure, and the dropsy gradually disappeared, his appetite returned, and he was brought back to health."

In verification of what Mr. Durham had said, we were informed by Mr. Edward J. Eaton, M.P.S., of the Pharmacy, Woodbridge, that the case came under his personal notice, as he supplied him with the Warner's SAFE Cure. Said Mr. Eaton: "The doctors had given up all hopes of the boy's recovery, as dropsy had set in, when he was put upon Warner's SAFE Cure, and was soon running around, to the surprise of all his friends. I have sold large quantities of this medicine, and know of lots of people who have derived great benefit from its use."

As we said in the beginning of this article, we are not in the habit of commending patent medicines, but when we meet a case like the one above narrated, we believe it to be our duty to let the public know of it, and to place the credit where it properly belongs.

BELLA.—Try the plan of washing the affected parts with warm water, and of drying them with a soft cloth; next smear the parts with the following ointment:—Oxide of zinc, one drachm; subnitrate of bismuth, one ounce; vaseline, a sufficient quantity to make an ointment.

E. C.—Apply to Krohne & Sesemann, Duke-street, Manchester-square, London, W.

CAPUT MORTUUM.—Sponge the parts with cold water night and morning, and after your meals take a wineglass of Vin Mariani (Roberts & Co., New Bond-street, London, W.) twice daily. What you name is not the secretion you think it. It is what the pamphlet describes it. Of course, at your age you must limit your exercise, otherwise you will suffer from such symptoms.

ANXIOUS ENQUIRER.—Quacks are often successfully prosecuted, but such cases demand much time and trouble, and unless you are fully prepared with exact evidence of the fraud, we should say you would be wiser to let the matter drop, and to consider yourself lucky in having your eyes opened to their practices. In Manchester lately quite an *exposé* of quacks took place, and your Birmingham firm, we suspect, is of the same calibre as the Manchester ones. Our advice is to let the matter drop; if you possess time and money, you may, of course, prosecute, if you have ample evidence at hand. You would require to summons the firm to a Birmingham court, we presume.

G. X. X.—Give the Cellular Clothing a trial—see advertisement in our pages—we are at present engaged in testing it; but we may add that for cycling it appears to be just what is wanted.

CAXTON.—Personally, we have no faith in any such appliance as that you name. Let us hear from you, however, your experiences of its use. Try the lotion recommended to "Girlie" in HEALTH, No. 269.

DAN CANTRELL.—1. You should continue the inhalation and Lanoline application; but you might also try the effect of syringing the nostrils with a weak solution of Hazeline added to cold or tepid water. 2. Let your friend try Himrod's Cure for Asthma, to be had of any druggist. A little of the powder is burnt, and the smoke inhaled.

A. W.—Due to defective digestion. Try the Cascara Cordial and diet remedies as prescribed to "Dyspeptic" in the present number. In addition, take Grant's Oat Flour, once or twice daily, in place of tea and coffee, and you will probably find your troubles disappear. If not, write again.

OMEGA.—1. The thirstiness is only due to the sugar. We should advise you to limit the quantity of the extract you are taking. Try half the quantity per day.

Certain 'HARNESS' Cure.
ELECTROPATHIC BELT
FOR
SLEEPLESSNESS
SLEEPLESSNESS.—The Rt. Hon. LORD BYRON says that—"*Harness' Electropathic Belt is invaluable for sleeplessness, I recommend it to all my friends.*"
Guaranteed to generate a mild continuous current of Electricity, which speedily cures all Disorders of the Nerves, Stomach, Liver and Kidneys. Thousands of Testimonials. **Pamphlet & Advice free on application** to **Mr. C. B. Harness,** *Consulting Electrician,* the **Medical Battery Co. Ltd.**
Only Address,
52, OXFORD ST. LONDON, W. (*Corner of Rathbone Place.*)
Call to-day, if possible, or write at once

2. Certainly: it is a common cause of such symptoms. Drink the Pitkeathly Water advertised in our pages when such symptoms are present. 3. Brand's Beef Essence is the best. It is remarkably easy of digestion, and can be taken cold in teaspoonfuls from the tin.

JE VOUS PRIE.—Try Bokŏl taken to dinner daily, as a nutritive malt liquor likely to do good. Probably as a simple and effective tonic, fifteen drops Fer Bravais in water, thrice daily after meals, would suit you.

SEDENS.—We are afraid not; such a case is always one for a surgeon's treatment, and for radical cure by a simple operation. In any case, see a good surgeon.

UNUS.—We do not think there is any condition present which avoidance of constipation, care in diet, and a change of air will not cure; but you might try the effect of following advice given to "Harry" in the present number, and note the effect of this treatment on your symptoms. Drink Vichy Water regularly to correct any acidity of the secretions, as this is a frequent cause of such symptoms.

C. B.—1. We should suggest your taking the advice of one of your infirmary surgeons regarding the proper make of boots required to alleviate or cure the deformity. You may save much trouble in future by obtaining such advice now. 2. Try the cough mixture recommended to "Nibs" in HEALTH, 269, and sponge the chest with cold water each morning.

BALTIC.—Address your inquiry to the French Hygienic Society, 56, Conduit-street, London, W., and you will obtain information on the point you desire.

E. P. R.—Try Bayley's Cure for Piles, 17, Cockspur-street, Pall-mall, London, S.W., and attend to the directions already given you regarding foods.

BILTON.—1. Use Dr. Pierre's Tooth Preparations regularly—the Eau Dentifrice and the Tooth Paste. 2. Scott's Midlothian Oat Flour should be taken regularly to supper. 3. Mellin's Food, certainly.

A. BAXTER.—Read the pamphlet, "A Lecture to Young Men" (post free, 1s. 1d., from Mr. Renshaw, 356, Strand, London, W.C.), and note its directions regarding diet, &c.

JOE.—The best filter is that made by Messrs. Howie, of Hurlford, Kilmarnock, N.B.

AGILIS.—To make walnut pomade, try the following method: The months of August and September are the best time to make stock of walnut oil or walnut pomade, and the way to make either of them is as follows (olive oil or benzoated lard may be used, as the case may be): Take four ounces of walnut shells, and beat them, along with half an ounce of alum, in a stone mortar until a paste of smooth consistence results. Then digest the paste in twenty ounces of lard or oil over a water-bath until all the moisture is driven off, and the mixture has become quite clear. Then strain and add perfume—ten drops of otto of rose and half a drachm of neroli make a pleasant odour.

REX LEX.—Try a course of hot salt water baths, and at bedtime give twenty grains of bromide of potash in a wine-glass of water if there is much pain. The diet should be largely of vegetable nature, and little flesh-food should be taken till the pains disappear. Try, also, rubbing St. Jacobs Oil into the pained joints as a useful embrocation.

BESSIE REID.—For the falling hair use the following lotion: solution of ammonia, half an ounce; tincture of cantharides, half an ounce; eau de Cologne, one ounce; water, to eight ounces. Mix. Rub into the roots morning and night with a soft sponge or piece of lint.

PAT.—The Geddes' Hemlock Bark Extract should be tried by you. As an outward application for the ailment you name, it is most successful. The address is 249, High Holborn, London, E.C.

CONSTANS.—Read the article on how to treat "Blackheads" in HEALTH, No. 199, which may be had from the Publisher, price 2½d., post free.

JONQUIL.—Inhale at bedtime the vapour of a pint of hot water to which a teaspoonful of Friar's Balsam has been added. After your meals take a dessertspoonful of Scott's Cod Oil Emulsion with Hypophosphites, thrice daily, as a general strengthening measure.

R. W.—Take a little Pitkeathly Water each morning for a time, and if the constipation continues, make your diet to include farinaceous materials—*e.g.*, Grant's Oat Flour and stewed fruits. Rest after your meals.

C. LEYBOURNE.—You should wear one of Dr. Martin's Bandages. Sit and rest, with your feet elevated, so as to favour the return of blood in the veins. Raise the foot of your bed slightly, and avoid standing for long periods. Wear very loose shoes.

NIGHLGERRY.—Let the patient take twenty drops Cascara Cordial once or twice daily in water, an hour before food; diet to be light, and rest to be taken after meals. To take aperients, as has been done, is a vital mistake. The Cascara Cordial will probably effect a cure, and thereafter let stewed fruits, Scott's Midlothian Oat Flour, wholemeal bread, &c., form part of the food.

NOTICE to LADIES and HOUSEKEEPERS.—Borwick's Baking Powder is guaranteed entirely free from alum—a cheap and highly injurious article frequently used in low-class baking-powders, which are retailed either by weight or in large tempting penny packets, and should be strenuously avoided.

SCOTT'S
EMULSION
OF PURE COD LIVER OIL
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Is three times as efficacious as the plain Oil.
It is almost as palatable as milk.
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The Hypophosphites and Oil are so skilfully combined, that they are much more potent in building up flesh and strength than if taken separately, and **SCOTT'S EMULSION** is to-day the best remedial agent for the cure of
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Physicians universally prescribe it in preference to the plain oil, having seen its remarkable curative effects.
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And the Balance, £1 10s. (should the same be required), in calls not exceeding 5s. per Share, at intervals of not less than three months, thus leaving a reserve liability of £2 10s. per Share, as above stated.

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Prospectus.

THIS Corporation has been established for the purpose of acquiring and developing the business of Sickness Insurance, carried on under the Acts of 1862 to 1886, by "THE HEALTH INSURANCE ASSOCIATION, LIMITED," of New Broad Street House, London, E.C., since its formation in June, 1885, on a mutual basis and with a Guarantee Fund.

The operations of the Association were directed to the introduction among the large and ever increasing middle class of a system of Insurance whereby, in return for moderate annual, half-yearly, or quarterly premiums, a payment of fixed weekly allowances, ranging in amount from £1 upwards, is secured during incapacity to work resulting from Sickness or Accident.

It is difficult to exaggerate the value of such a provision to Professional men, Traders, Clerks and others, whose earnings are, as a rule, entirely dependent upon their personal attention to business; whilst it is confidently expected that employers will appreciate and support a Company which in a great measure relieves them from the losses and difficulties, so common in places of business, arising from the illness of employés.

Judging from the results obtained by the Association, the thoroughly practicable character of Sickness Insurance appears to be demonstrated; and it is believed that, with sufficient funds and adequate security, the business is likely to result in considerable profit. It has also been found that the ratio of claims to premiums (which is the true test of the merits of the system) has been much below the percentage provided for in the Tables of Rates under which the Association worked.

The Association gathered together throughout the United Kingdom a large and valuable staff of Agents, and, by the payment of numerous and varied claims, demonstrated in a practical manner the great benefits resulting from Sickness Insurance.

The Association has been in receipt of a steadily increasing premium income, which was estimated to reach £4,000 during the current year.

It has, however, been found that a Guarantee Fund is not deemed by Insurers to offer so good a security for the payment of claims as is afforded by a substantial subscribed share Capital, partly called up and invested in good securities, and with a large balance in reserve, easily available in cases of emergency.

The Corporation has acquired the business and goodwill of the Association, with all its assets, subject to its liabilities.

It is believed that a sum of £10,000—being the amount of capital to be now called up in the Corporation—will be fully sufficient to cover the expense of acquiring such business, and to provide for its liabilities, as well as to meet all the requirements of this Corporation, which promises to prove a commercial success, and may be expected to pay good dividends.

The Founders' Shares will be allotted as remuneration to the Founders of the Corporation, and will be fully paid for by them on allotment.

The Founders' Shares will receive no dividend until a satisfactory appropriation of profits (as defined in the Articles of Association) has been made to a Reserve Fund, and 7½ per cent. dividend paid on the Ordinary Shares. Subject to this, the Founders' Shares will be entitled to one-half the surplus profits, the other half being divisible among the ordinary Shareholders, or disposed of in such manner as they may determine.

Very encouraging promises of support in the shape of new and extended business have been received.

The only contract entered into is one dated the 6th day of June, 1888, made between The Health Insurance Association, Limited, and Edwin Guthrie and Francis Henry Edward Livesay, the Liquidators thereof, of the one part, and the Corporation of the other part.

The Memorandum and Articles of Association of the Company and the contract above referred to may be seen at the offices of the Solicitors to the Company.

6th June, 1888.

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